

IN THE CLAIMS:

Please amend the claims as follows:

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[49.] 47. The assembly according to claim [48] 46, wherein said wetting agent layer comprises silane.

[50.] 48. The assembly according to claim [48] 46, wherein said underfill material substantially fills said gap between said semiconductor device and said substrate.

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[51.] 49. The assembly according to claim [48] 46, said substrate further including an aperture extending therethrough.

[52.] 50. The assembly according to claim [48] 46, wherein said aperture is located adjacent another surface of said semiconductor device.

[53.] 51. The assembly according to claim [48] 46, wherein said wetting agent layer comprises one of glycidoxypopyltinethoxysilane and ethyltrimethoxysilane.

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[54.] 52. A semiconductor assembly comprising:
a semiconductor device having an active surface;
a substrate having an upper surface;
an underfill material provided between said substrate and said semiconductor device; and
a wetting agent layer provided on a portion of said active surface of said semiconductor device
and a portion of said upper surface of said substrate.

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[55.] 53. The assembly according to claim [54] 52, wherein said wetting agent layer comprises at least one layer.

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[56.] 54. The assembly according to claim [54] 52, wherein said wetting agent layer comprises one of silane, glycidoxypopyltinethoxysilane and ethyltrimethoxysilane.

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[57.] 55. A semiconductor assembly comprising:

- a semiconductor device having an active surface having a plurality of bond pads thereon;
- a substrate having an upper surface having a plurality of circuits thereon;
- a plurality of bumps connecting said plurality of bond pads on said active surface of said semiconductor device to said plurality of circuits on said upper surface of said substrate, said plurality of bumps forming a gap between said semiconductor device and said substrate;
- an underfill material provided between said substrate and said semiconductor device; and
- a wetting agent layer provided on of said active surface of said semiconductor device and said upper surface of said substrate.

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[58.] 56. The assembly according to claim [57] 55, wherein said underfill material substantially fills said gap between said semiconductor device and said substrate.

[59.] 57. The assembly according to claim [57] 55, further comprising an aperture extending through said substrate.

[60.] 58. A method for attaching a semiconductor assembly, said method comprising:

- providing a semiconductor device having an active surface;
- providing a substrate having an upper surface;
- applying a wetting agent layer to one of said active surface of said semiconductor device and said top surface of said substrate;
- connecting said semiconductor device to said substrate so that said active surface of said semiconductor device faces said top surface of said substrate; and
- applying an underfill material between the substrate and the semiconductor device.

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[61.] 59. The method according to claim [60] 58, wherein applying said wetting agent layer comprises any one of a dispensing method, a brushing method, and a spraying method.

[62.] 60. The method according to claim [60] 58, wherein said wetting agent layer comprises at least one layer.

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[63.] 61. The method according to claim [60] 58, wherein said wetting agent layer comprises one of [silance] silane, glycidoxypolytinethoxysilane, and ethyltrimethoxysilane.

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[64.] 62. A method for attaching a semiconductor assembly, said method comprising:
providing a semiconductor device having an active surface, a first end, a second end, a first lateral side end and a second lateral side end;
providing a substrate having an upper surface, a first side wall, a second side wall, a first lateral side wall and a second lateral side wall;
applying a silane layer to one of a portion of said active surface of said [semiconductor] semiconductor device and a portion of said upper surface of said substrate;
connecting said semiconductor device to said substrate so that said active surface of said semiconductor device faces said upper surface of said substrate; and
applying an underfill material between said semiconductor device and said substrate.

REMARKS

No new matter has been added. The Applicants request entry of the foregoing amendment prior to examination of the application on the merits.

Respectfully submitted,



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